

PATENT ATTY. DKT. NO.: 148045

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Pei Hsuon Chan et al.

Art Unit:

Serial No.: 10/761,043

Filed: January 20, 2004

Examiner:

1 fied. January 20, 200-

:

For: DIAGONAL-ARRANGED

QUADRATURE MRI RADIO FREQUENCY ARRAY COIL

SYSTEM FOR THREE

DIMENSIONAL PARALLEL

IMAGING

CERTIFICATE OF MAILING

I certify that this correspondence is being deposited with the United States Posta Service as first class mail in an envelope addressed to: Mrdl Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 1459 on December 29, 2004.

Evan Reno Sotiriou, Reg. No. 46,247

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The following are submitted in the above application in compliance with 37 CFR 1.97 and 37 CFR 1.98.

This paper is submitted in accordance with:

2. 37 CFR 1.97(b): [within three months of national, non-CPA filing, prior to first Office Action, on the merits, or prior to first office action after filing an RCE]

☐ 3.		FR 1.97(c): [before Final Office Action, Allowance, or other action closing cution, whichever is earlier]; and					
	☐ a. ☐ b.	· · · · · · · · · · · · · · · · · · ·	on of this Information				
☐ 4.	37 CF	FR 1.97(d): [on or before issue fee payment]; and					
	☐ a. ☐ b.	1	sion of this Information				
☐ 5.	Certifi	ification					
	☐ a.	communication from a foreign patent office in a counterpa	rt foreign patent				
	□ b.	application not more than three months prior to the filing of the information contained in this Statement was cit from a foreign patent office in a counterpart foreign patent knowledge of the person signing this document after making no item of information contained in this Statement was knowledge in 37 CFR 1.56(c) more than three (3) months profit this Statement.	ed in a communication application and, to the ng reasonable inquiry, own to any individual				
⊠ 6.	Payme	nent of all applicable fees:					
		Please charge all applicable fees associated with the submit Information Disclosure Statement to Deposit Account No. Enclosed is a check in the amount of \$in paym fees associated with the submittal of this Information Disc.	01-2384. nent of all applicable				
This d	ocumen	Evan Reno Sotiriou, Reg. No. Armstrong Teasdale LLP One Metropolitan Square, St. St. Louis, Missouri 63102 (314) 621-5070					

PTO/SB/08A (08-03) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of |2

Complete if Known				
Application Number	10/761,043	·		
Filing Date	January 20, 2004			
First Named Inventor	Pei Hsuon Chan			
Art Unit	2862			
Examiner Name				
Attorney Docket Number	148045NM			

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (* known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	^{US-} 4,692,705	09-08-1987	Hayes	
	AB	^{US-} 4,825,162	04-25-1989	Roemer et al.	
	AC	^{US-} 5,370,118	12-06-1994	Vij et al.	
	AD	^{US-} 5,477,146	12-19-1995	Jones	
	AF	^{US-} 5,548,218	08-20-1996	Lu	
		US-			
·		US-			
		US-			
•		US-			
		US-	,		
		US-			
		US-			
	<u> </u>	US-			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T	
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY			┸	
						Ĺ	

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND** TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	der the Paperwork Red te for form 1449/PTO	uction A	ct of 1995, no persons ar	re required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known			
Subsulu	te for form 1445/F TO			Application Number	10/761,043		
INF	ORMATION	DIS	CLOSURE	Filing Date	January 20, 2004		
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Pei Hsuon Chan		
	(Use as many she	ata aa n	ooossand	Art Unit	2862		
	(USB as many sne	ets as n	ecessary)	Examiner Name			
Sheet	2	of	2	Attorney Docket Number	148045NM		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	ВА	"SENSE: Sensitivity Encoding for Fast MRI", Pruessman, et al., Magnetic Resonance in Medicine, Vol. 42, p952 - p962 (1999).	
	ВВ	"Synergy Body Coil Optimal Design for SENSE Imaging". P.C.H.A. Haans, ISMRM 8th Annual Meeting, p557 (2000). (CDROM).	
	вс	"An array that exploits phase for SENSE Imaging", Hajnal, et al., ISMRM 8th Annual Meeting, p1719 (2000).	
	BD	"Specific Coil Design for SENSE: A Six-Element Cardiac Array", Weiger, et al., Magnetic Resonance in Medicine, Vol. 45, p495 - p504 (2001).	
	BE	"Concentric Coil Arrays for Spatial Encoding in Parallel MRI", Ohlinger, et al., ISMRM 9th Annual Meeting, p21 (2001).	
	BF	"Torso Array Coil with Eight QD-Surface Coils for Parallel Imaging", Okamoto, et al., ISMRM 10th Annual Meeting, p859 (2002). (CDROM)	
	ВG	"An 8 Channel Cardiac SENSE Array", Klinge, et al., ISMRM 10th Annual Meeting, p904 (2002). (CDROM)	
	1		

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.